



# AUTHORIZE SINGLE SOURCE PROCUREMENT: DROPLET DIGITAL POLYMERASE CHAIN REACTION SYSTEM FOR RAPID-TESTING OF BEACH WATER SAMPLES (DISTRICTS: ALL)

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*Health Services Advisory Board Meeting, August 3, 2021*

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# BEACH WATER TESTING



LIVE WELL  
SAN DIEGO

- San Diego County beach water quality testing performed by Public Health Lab
- The County received first-in-the nation coastal community approval from the California Department of Public Health and the U.S. Environmental Protection Agency to utilize the new Droplet Digital Polymerase Chain Reaction (ddPCR) method for rapid-testing of beach water samples.
- Droplet Digital Polymerase Chain Reaction (ddPCR) method for rapid-testing of beach water samples.
- Improved monitoring and providing faster test results will enable same-day public notification of beach water quality.

# PH LAB WATER TESTING DATA



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	ALL SITES	SOUTH COUNTY
<b>Locations</b>	74	9
<b>FY 18-19</b>	2,650	677
<b>FY 19-20</b>	4,801	1,578
<b>FY 20-21</b>	10,611	4,899

# INSTRUMENT OVERVIEW



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QX ONE System employs the droplet digital polymerase chain reaction (ddPCR) assay, or testing method, that is the newest testing method available and will **improve the response time** in notifying the public when there is contamination in beach water.

## QX ONE design will:

- Provide **five times** the testing capacity
- Provide **more data**
- **Reduce** hands-on testing time

# HOW EQUIPMENT WILL IMPROVE RESPONSE TIME



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Methodology five years ago was 72-96 hours to obtain results.  
Transitioned to 28-24 hours.  
Current approved methods reports results in 18-28 hours.



QX One equipment and new molecular method will move us to same day reporting.



Samples will be collected in the morning and results will be available in the afternoon, which leads to more timely notification to the public by DEHQ.

Public Health Laboratory supports the Building Better Health component of the County's *Live Well San Diego* vision by:

Providing  
accurate,  
reliable, and  
valid test  
results.



Enabling DEHQ  
to provide same-  
day public  
notification of  
beach water  
quality.



Protecting the  
health of  
residents and  
visitors to San  
Diego County  
beaches.

# FISCAL IMPACT



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The contract funding pays for the ddPCR system, preventative maintenance, and consumables.

FY 21-22	Option Years through FY 25-26
\$665,000	Up to \$250,000/yr

Funding Source
Realignment

There will be no change to the net General Fund cost and no additional staff years.

# RECOMMENDATIONS



1. Authorize the Director, Department of Purchasing and Contracting to enter into a single source contract with Bio-Rad for the QX ONE Droplet Digital Polymerase Chain Reaction system and consumables for one year and up to four option periods through July 1, 2016, and an additional six months if needed.

2. Authorize the Director, Department of Purchasing and Contracting to amend the contract as needed to reflect changes to requirements and funding, subject to the approval of the Agency Director, Health and Human Service Agency.

3. Authorize the Agency Director, Health and Human Services Agency, to apply for additional funding opportunity announcements, if available, that address improvement of beach water monitoring for San Diego County residents.



# ANTICIPATED OUTCOMES



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- Increased volume of requests from DEHQ to perform new rapid-testing on beach water samples at the beaches in San Diego County, including daily testing in the South County.
- Improved response time to same-day results will reduce exposure to contaminated water and potential illnesses in the community in comparison to the current approved methods, which report results 18-24 hours later.



# ITEM #XX: AUTHORIZE SINGLE SOURCE PROCUREMENT: DROPLET DIGITAL POLYMERASE CHAIN REACTION SYSTEM FOR RAPID-TESTING OF BEACH WATER SAMPLES (DISTRICTS: ALL)

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